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Association for Behavior Analysis International

Understanding Behavior Analysis Frequently Asked Questions

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Why is the field called behavior analysis?

The term 'behavior analysis' was coined by B. F. Skinner, generally considered the founder of behavior analysis. The term was meant to distinguish the field as one that focuses on behavior as a subject in its own right, rather than as an index or manifestation of something happening at some other level (in the mind, brain, psyche, etc.).

Skinner believed that thinking and feeling were covert forms of behavior. "Thoughts and feelings do not explain behavior," he wrote, "they are more behavior to be explained."

Skinner thought that the concept of mind belonged to the philosophers, and that science should focus on behavior. These ideas form the core of behavior analysis today.

If thoughts and feelings do not explain behavior, what does?

Behavior analysts make the assumption that all behavior is the product of two kinds of variables: biological and environmental.

Biological variables include anatomical structures (birds can fly, people can't), normal physiological processes (digestion, respiration, neurological changes resulting from experience), and anomalies in anatomy and physiology due to injury or disease. Genes influence behavior indirectly through their effects on anatomy and physiology.

Environmental variables include any changes in the environment (a rise in temperature, the availability of food, comments by other people, cultural customs).

Behavior analysts are primarily interested in the role of environment in behavior change.

Is it true that behavior analysts claim that behavior is explained solely by the environment, that biology doesn't matter?

Not so. It's true that most behavior analysts focus their attention on environmental variables, but no behavior analyst has ever denied that biology plays an important role in behavior. Skinner (whose first interest in graduate school was in physiology) repeatedly noted that biological variables are important, but he thought they should be left to anatomists and physiologists, and that behavior analysts should focus on the influence of the environment. He argued for an analysis of behavior as an end in itself and not as a mere indicator of underlying mental or neurophysiologic processes.

Not all behavior analysts agree with Skinner on that point. Some study the effects of drugs, disease, or nutrition on behavior.

Are behavior analyst and behaviorist equivalent terms?

Pretty much. But the term behaviorist is somewhat broader and historically has encompassed views not embraced by behavior analysts.

You study behavior. What is behavior?

According to behavior analysts, behavior is anything a person or animal does that can be observed and measured.

How broad is the application of behavior analysis?

The application of behavior analysis is very broad, ranging from assisting individuals in overcoming drug addiction to improving workplace organizations. Behavior analysis has been applied to programs related to diet, exercise, juvenile delinquency, toilet training, education, organizational structures, and more.

Thoughts and feelings seem very important. Is it true that behavior analysts ignore them?

Since thinking and feeling are things people do, they qualify as behavior, but they do present special problems for scientific study. For example, it is currently impossible for a researcher to observe and count the number of times a person thinks of an elephant or feels sad, but an individual can observe and count the number of times that he or she thinks of an elephant or feels sad. In addition, it is sometimes possible for researchers to identify physiological events that are reliably associated with particular thoughts and feelings. Subtle changes in perspiration in the palms, for example, are generally considered a good measure of fear.

What kinds of research do behavior analysts do?

As in other experimental sciences, research is usually classified as basic or applied. In behavior analysis, basic research attempts to identify principles underlying behavior change. For example, basic research may attempt to improve our understanding of reinforcement or shaping.

Applied research attempts to identify effective ways of dealing with behavior problems in schools, clinics, workplaces, and other settings. Applied behavior analytic research has had remarkable success in helping children learn and has revolutionized the treatment of children with autism spectrum disorders. Additionally, applied behavior analysis may enhance the quality of life even if problems are not present (e.g., improving educational and occupational programs through effective behavior change).

Do all behavior analysts do research?

Research is a basic part of the methodology of behavior analysis, including applied behavior analysis. In attempting to determine how to deal with a particular behavior problem, applied behavior analysts gather data just as a basic researcher does. Typically, however, data collected from applied research is not published unless it reveals something new about behavior change.

Are behavior therapists the same as applied behavior analysts?

There are similarities between the two, but the terms are not synonymous. Behavior therapists tend to accept the underlying assumptions of behavior analysis. However, they tend to use Pavlovian procedures and focus on problems involving covert behavior, such as anxiety disorders, depression, and unwanted thoughts and feelings. Applied behavior analysts tend to use procedures based on operant procedures and tend to focus on overt (publicly observable) behavior.

I've heard that applied behavior analysts use drugs, psychosurgery, and electroconvulsive shock therapy to change behavior. Is this the case?

Not true. Behavior analysts do not use drugs, psychosurgery, or shock therapy to treat behavior problems. These procedures generally are provided by licensed physicians working in psychiatric hospitals. Training in applied behavior analysis does not include experience in these procedures, and they play no part in applied behavior analysis practice. Some applied behavior analysts work in hospital settings and may work with patients who have received these treatments from a physician, but applied behavior analysts themselves do not participate in these procedures.

But don't applied behavior analysts use electric shock and other forms of physical punishment?

Throughout his career, Skinner opposed the use of all forms of punishment; he advocated positive ways of changing behavior.

Standards for practice in applied behavior analysis severely restrict the use of electric shock and other forms of physical punishment. For example, it can be used only when other methods have failed, and when the behavior involved is a threat to the safety of the individual or others.

An autistic child who repeatedly hits himself in the eyes with his fists, for example, is likely to cause blindness. If other forms of treatment (e.g., positive reinforcement, extinction) are unsuccessful, the child might be sprayed in the face with a water mister each time he hits himself. This mild form of physical punishment is usually effective in reducing the frequency of self-injurious behavior.

Stronger forms of physical punishment, such as brief and mild electric shock, are seldom used and then only as a last resort with severe behavior disorders that have not responded to gentler procedures.

Is behavior analysis becoming more widely accepted?

There are still many people with misconceptions about the field. This is largely due to misrepresentations of behavior analysis both in the popular media and in textbooks. Legitimate behavior analysts are also hurt by reports of abuse by people who incorrectly claim to be using behavior analysis in treating behavior problems. Because of this problem, ABA International® has established standards for accreditation of graduate and undergraduate training programs in behavior analysis, and the Behavior Analysis Certification Board® has created standards for certification of behavior analysts.

Despite misrepresentations and misuse, interest in the field has grown steadily. Over the past 60 years, applied behavior analysis has become recognized as the treatment of choice for behavior problems

associated with mental retardation, autism spectrum disorders, brain injury, and other disorders. Many people also recognize that applied behavior analysis is capable of producing remarkable results in classroom learning. In recent years, interest in the field has grown especially rapidly outside the U.S. ABA International has over 5,000 members from nearly 50 countries and its affiliated chapters have a total membership of about 13,000 world wide.